

App. No. 10/604,512
Response dated October 5, 2005
Reply to Office Action of July 5, 2005

REMARKS

Summary of Amendments

1. The specification has been amended at initiative on Applicants' behalf to revise the technically inaccurate term "oxidized powder" to the correct term "oxide powder."

Claims 1 through 5 were originally presented in this application. No claims have been added. Claim 2 has been cancelled without prejudice. Claim 1 has been amended, as described in more detail below, to more particularly point out and distinctly claim the inventive material of the instant invention. Claim 4 has been amended to change its dependency from claim 2 to claim 1. Claims 1 and 3 through 5 remaining pending.

Claim Rejections – 35 U.S.C. § 112

2. Claims 1, 3, and 5 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner states: "The term 'diameter of the wafer' in claim 1 is a relative term since wafer is not a part of the claimed apparatus and its diameter may vary. This renders the claim indefinite."
3. Claim 1 has been amended to address this issue. In particular, claim 1 has been amended to recite: "the wafer holder having a surface for carrying wafers of a predetermined diameter." Applicants respectfully submit that amended claim 1 is now definite. Moreover, Applicants further submit that the artisan of ordinary skill in the wafer holder arts would readily recognize that wafer holders are highly engineered apparatuses that are often fabricated to process wafers having a particular, predetermined size (e.g., having a diameter of either 150, 200, or 300 mm). Accordingly, Applicants submit that amended claim 1 is definite in its recitation of "a predetermined wafer diameter."

Claim Rejections - 35 U.S.C. § 102

Claims 1-5; Niori et al. '246

Claims 1-5; Divakar et al. '487

4. Independent Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by *Niori et al.* (U.S. Pat. No. 197,246) and 35 U.S.C. § 102(e) as being anticipated by *Divakar et al.* (U.S. Pat. App. Pub. No. 2002/0185487). In

App. No. 10/604,512
Response dated October 5, 2005
Reply to Office Action of July 5, 2005

particular, with respect to the *Niori et al.* rejection, the Examiner states: "the size of electrode as it is disclosed to be 200 mm it is same as that of a standard wafer of 200 mm."

5. Independent claim 1 has been amended to recite: "the electrode circuit diameter being greater than said predetermined diameter of the wafers." Support for this amendment may be found, for example, in Tables 1 and 2, as well as paragraphs [0014] and [0067] of the original specification, such that no new search is required and no new matter has been entered.
6. Applicants respectfully submit that, as amended, claim 1 now distinguishes patentably over *Niori et al.* and *Divakar et al.* As the Examiner points out, *Niori et al.* discloses a wafer holder having an RF electrode with a diameter equal to the wafer (both being 200 mm). However, neither *Niori et al.* nor *Divakar et al.* explicitly disclose an RF electrode circuit having a diameter greater than that of the wafer as recited in amended claim 1.
7. Regarding *Niori et al.*, the Examiner also states: "the electrode circuit diameter is disclosed slightly greater than the wafer (Fig 7)." Applicants respectfully disagree. While, in Fig. 7, the electrode circuit may appear to have a diameter greater than that of the wafer, Applicants respectfully point out that Fig. 7 of *Niori et al.* is schematic in nature and clearly not drawn to scale. Moreover, Fig. 7 is apparently not intended to show any relative size relationship between the electrode circuit and the wafer since the figure includes no indicia of any kind indicating such a difference. This is further supported by the absence of any teaching in the *Niori et al.* specification that the electrode circuit diameter is greater than that of the wafer. In fact, the only teaching of any relevance is in direct contrast to the appearance of Fig. 7. As noted by the Examiner, *Niori et al.* explicitly disclose that the electrode circuit and the wafer have equal diameters (200 mm). Accordingly, Applicant submits that *Niori et al.* does not disclose an electrode circuit having a diameter greater than that of the wafer.
8. Regarding *Divakar et al.*, the Examiner also states: "the electrode circuit diameter is disclosed slightly greater than the wafer (Fig 1)." Applicants respectfully disagree. While, in Fig. 1, the electrode circuit may appear to have a diameter greater than that of the wafer, the Applicant respectfully points out that Fig. 1 of *Divakar et al.* is clearly schematic in nature and not drawn to scale. In fact, Fig. 1 appears to show an electrode circuit having a diameter greater than twice that of the wafer. The artisan of ordinary skill in the wafer holder arts would readily recognize such an arrangement as improbable and unrealistic. Furthermore, Fig. 1 is apparently not intended to show any relative size relationship between the electrode circuit and the wafer since the figure includes no indicia of any kind indicating a difference. This is further supported by the absence of any teaching in the *Divakar et al.* specification regarding the relative diameters of the electrode

App. No. 10/604,512
Response dated October 5, 2005
Reply to Office Action of July 5, 2005

circuit and the wafer. Accordingly, Applicants submit that *Divakar et al.* does not disclose an electrode circuit having a diameter greater than that of the wafer.

9. Moreover, Applicants respectfully point out that *Niori et al.* and *Divakar et al.* show no recognition of the problem faced by the Applicant, namely that of achieving a highly uniform deposition on a wafer surface. Moreover, neither reference includes any teaching regarding the importance of the relative diameters of the electrode circuit and the wafer in achieving such uniform depositions. On the contrary, *Niori et al.* is primarily concerned with wafer holders (plasma generating electrode devices) having sufficient corrosion resistance to withstand corrosive plasma (columns 1 and 2 are replete with references to corrosion resistance and corrosion related issues). *Divakar et al.* is concerned with wafer holders having an improved heating element (paragraph [0012]).

Claim Rejections – 35 U.S.C. § 103

Claims 1-5; Niori et al. '246 in view of Shamouilian et al. '298

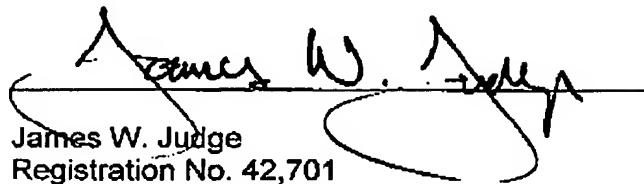
10. Claims 1 through 5 also stand rejected under U.S.C. 103(a) as being unpatentable over *Niori et al.* in view of *Shamouilian et al.* (U.S. Pat. App. Pub. No. 2001/0003298). Applicants respectfully submit that this rejection is rendered moot in view of the remarks set forth above in paragraphs 5 through 9 of this paper.
11. Applicants therefore respectfully submit that independent claim 1, as amended, is patentable over the prior art of record. Independent claim 1 being allowable, it follows *a fortiori* that pending dependent claims 3 through 5 must also be allowable, since these dependent claims carry with them all the elements of independent claim 1.

App. No. 10/604,512
Response dated October 5, 2005
Reply to Office Action of July 5, 2005

Applicants believe that this application is now in full condition for allowance,
which action Applicants earnestly solicit.

Respectfully submitted,

October 5, 2005



James W. Judge
Registration No. 42,701

JUDGE PATENT FIRM
Rivière Shukugawa 3rd Fl.
3-1 Wakamatsu-cho
Nishinomiya-shi, Hyogo 662-0035
JAPAN

Telephone: 305-938-7119
Voicemail/Fax: 703-997-4565